CLAIM AMENDMENTS:

A listing of the entire set of pending claims is submitted herewith per 37 C.F.R. §1.121. This listing of claims 1, and 4-7, 9-22 will replace all prior versions, and listings of claims in the application.

1. (Currently amended) A gas bearing system comprising two opposing substantially parallel bearing surfaces (2,3) and at least one gas duct (6) for supplying gas through an orifice (7) to the bearing gap (5) between said bearing surfaces (2,3), characterized in that at least one of said bearing surfaces (2) is provided with at least one cavity (8,9) extending over 0.3 mm^2 to 3 mm^2 of said at least one bearing surface (2) and that the content of said cavity (8,9) is between 0.3 mm^3 and 4 mm^3.

2. (Cancelled)

3. (Cancelled)

4. (Currently amended) A gas bearing system as claimed in claim 1, characterized in that said gas duct (6) supplies gas to said cavity (8) through an orifice (7) in ~~the~~ a wall of said cavity (8).

5. (Currently amended) A gas bearing system as claimed in claim 1, characterized in that the depth of the cavity (8,9) is at least two times~~, preferably at least four times, more preferably at least six times~~ the diameter of said orifice (7).

6. (Currently amended) A gas bearing system as claimed in claim 1, characterized in that said orifice (7) has a diameter between 0.05 mm and 0.3 mm~~, preferably between 0.07 mm and 0.25 mm, more preferably between 0.1 mm and 0.2 mm~~.

7. (Currently amended) A gas bearing system as claimed in claim 1, characterized in that the dimension of the cavity (8,9) in a direction parallel to said bearing surface (2) is between 0.5 mm and 2.5 mm~~, preferably between 0.5 mm and 1.5 mm, more preferably between 0.7 mm and 1.2 mm~~.

8. (Original) A gas bearing system as claimed in claim 1, characterized in that the cavity (8,9) has a substantially cylindrical shape, the cylindrical axis being directed substantially perpendicularly to said substantially parallel bearing surfaces (2,3).

9. (Currently amended) A gas bearing system as claimed in claim~~s,~~ 1 characterized in that the depth of the cavity (8,9) is between 0.3 mm and 2 mm~~, preferably between 0.5 mm and 1.5 mm, more preferably between 0.7 mm and 1.2 mm~~.

10. (Currently amended) A ~~high precision~~ machine comprising a gas bearing system, characterized by a gas bearing system as claimed in claim 1.

11. (New) A gas bearing system comprising two opposing substantially parallel bearing surfaces (2,3) and at least one gas duct (6) for supplying gas through an orifice (7) to the bearing gap (5) between said bearing surfaces (2,3), characterized in that at least one of said bearing surfaces (2) is provided with at least one cavity (8,9) extending over 0.3 mm^2 to 3 mm^2 of said at least one bearing surface (2) and in that the depth of the cavity (8,9) is at least two times the diameter of said orifice (7).

12. (New) A gas bearing system as claimed in claim 11, characterized in that the content of said cavity (8,9) is between 0.3 mm^3 and 4 mm^3.

13. (New) A gas bearing system as claimed in claim 11, characterized in that said gas duct (6) supplies gas to said cavity (8) through an orifice (7) in a wall of said cavity (8).

14. (New) A gas bearing system as claimed in claim 11, characterized in that said orifice (7) has a diameter between 0.05 mm and 0.3 mm.

15. (New) A gas bearing system as claimed in claim 11, characterized in that the cavity (8,9) has a substantially cylindrical shape, the cylindrical axis being directed substantially perpendicularly to said substantially parallel bearing surfaces (2,3).

16. (New) A machine comprising a gas bearing system, characterized by a gas bearing system as claimed in claim 11.

17. (New) A gas bearing system comprising two opposing substantially parallel bearing surfaces (2,3) and at least one gas duct (6) for supplying gas through an orifice (7) to the bearing gap (5) between said bearing surfaces (2,3), characterized in that at least one of said bearing surfaces (2) is provided with at least one cavity (8,9) extending over 0.3 mm^2 to 3 mm^2 of said at least one bearing surface (2) and in that the depth of the cavity (8,9) is between 0.3 mm and 2 mm.

18. (New) A gas bearing system as claimed in claim 17, characterized in that the content of said cavity (8,9) is between 0.3 mm^3 and 4 mm^3.

19. (New) A gas bearing system as claimed in claim 17, characterized in that said gas duct (6) supplies gas to said cavity (8) through an orifice (7) in a wall of said cavity (8).

20. (New) A gas bearing system as claimed in claims 17, characterized in that the dimension of the cavity (8,9) in a direction parallel to said bearing surface (2) is between 0.5 mm and 2.5 mm.

21. (New) A gas bearing system as claimed in claims 17, characterized in that the cavity (8,9) has a substantially cylindrical shape, the cylindrical axis being directed substantially perpendicularly to said substantially parallel bearing surfaces (2,3).

22. (New) A machine comprising a gas bearing system, characterized by a gas bearing system as claimed in claim 17.